

## Self-similar fluctuations in a turbulent plasma

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### Abstract

In the paper one of possible reasons for explanation of strange transport in the turbulent plasma in the presence of a fluctuating magnetic field is discussed. A model of self-similar fluctuations in the magnetic field is investigated in terms of the microscopic theory based on a kinetic diffusion equation for plasmas. A problem of non-Markovian evolution for fluctuations in a magnetic field is discussed and the appearance of anomalous transport is illustrated. It is shown this particular class is of special interest for the description of subdiffusive process.

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### Keywords

Anomalous transport, Diffusion, Turbulent plasma